This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-12. Canceled.

13. (currently amended) A method for identifying a compound useful in the ~~diagnosis or~~ treatment of a human neutral sphingomyelinase related disorder, comprising

contacting a candidate pharmacological agent with a recombinant human neutral sphingomyelinase having an amino acid sequence represented by SEQ ID NO. 2 or fragment ~~or derivative~~ thereof or a derivative of the amino acid sequence represented by SEQ ID NO. 2 and analyzing the mixture of the candidate agent and human neutral sphingomyelinase or the fragment or the derivative ~~thereof~~,

wherein the analyzing step further comprises comparing enzyme activity in the presence and absence of the agent, wherein the fragment or derivative ~~of the human neutral a sphingomyelinase~~ has at least about 50% of the activity of the protein of SEQ ID No. 2, wherein the fragment or derivative of the recombinant human neutral sphingomyelinase is at least about 70% identical to the protein of SEQ ID No. 2.

14. (original) The method of claim 13 wherein the human neutral sphingomyelinase has a sequence represented by SEQ ID NO:2.

15. (original) The method of claim 13 wherein

1) a mixture is formed of I) a human neutral sphingomyelinase cleavage target, ii) the human neutral sphingomyelinase or fragment or derivative thereof, and iii) a candidate pharmacological agent;

2) the mixture is treated under conditions whereby, but for the present of the candidate agent, the human neutral sphingomyelinase of fragment or derivative cleaves the cleavage target to yield a cleavage product; and

3) the presence of the cleavage product is detected, wherein a reduced

concentration of the cleavage product relative to a control mixture that does not contain the candidate agent identifies the candidate agent as a compound potentially useful in the diagnosis or treatment of a human neutral sphingomyelinase related disorder.

16. (original) The method of claim 15 wherein the human neutral sphingomyelinase cleavage target is sphingomyelin.

17.(original) The method of claim 15 wherein the human neutral sphingomyelinase cleavage product is ceramide.

Claims 18-31. Canceled.

32. (new) The method of claim 13, wherein the fragment or derivative of the recombinant human neutral sphingomyelinase is at least about 30 amino acids in length.

33. (new) The method of claim 32, wherein the fragment or derivative of the recombinant human neutral sphingomyelinase is at least about 50 or 70 amino acids in length.

34. (new) A method for identifying a compound useful in the treatment of a human neutral sphingomyelinase related disorder, comprising

contacting a candidate pharmacological agent with a recombinant human neutral sphingomyelinase having an amino acid sequence represented by SEQ ID NO. 2 and analyzing the mixture of the candidate agent and human neutral sphingomyelinase,

wherein the analyzing step further comprises comparing enzyme activity in the presence and absence of the agent..

35. (new) The method of claim 34 wherein,

1) a mixture is formed of i) a human neutral sphingomyelinase cleavage target, ii) the human neutral sphingomyelinase, and iii) a candidate pharmacological agent;

2) the mixture is treated under conditions whereby, but for the present of the candidate agent, the human neutral sphingomyelinase cleaves the cleavage target to yield

a cleavage product; and

3) the presence of the cleavage product is detected, wherein a reduced concentration of the cleavage product relative to a control mixture that does not contain the candidate agent identifies the candidate agent as a compound potentially useful in the treatment of a human neutral sphingomyelinase related disorder.

36. (new) The method of claim 35 wherein the human neutral sphingomyelinase cleavage target is sphingomyelin.

37. (new) The method of claim 36, wherein the human neutral sphingomyelinase cleavage product is ceramide.